

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.- 19. (Cancelled)

20. (New) An article of manufacture including at least one tangible medium having an enterprise directory configured for IP telephony embodied thereon, the article of manufacture comprising:

an X.500 compatible enterprise directory embodied on the at least one tangible medium, wherein the X.500-compatible enterprise directory is a directory of named objects, including users, network devices and network services;

wherein a schema of the enterprise directory includes at least one object for representing a component of an IP telephony system, the component selected from a group consisting of: a GateKeeper; a Gateway; a Multipoint Control Unit (MCU); a GateKeeper Exchange; and a user with associated telephony service attributes.

21. (New) A communication system comprising:

a public switched telephone (PST) network; an internet protocol (IP) network; a plurality of gateway networks coupled to the PST network and the IP network, each of the plurality of gateway networks configured to route a telephone call over the PST network or the IP network; and an enterprise directory server coupled to the plurality of gateway networks, the enterprise directory server comprising an enterprise directory that is a directory of named objects, including users, network devices and network services and having an extensible schema configured to provide data to support routing of telephone calls.

22. (New) A communication system according to claim 21 wherein each of the plurality of gateway networks comprise a gateway database capable of providing information for routing the telephone call over the IP network, and wherein the gateway database is created from information dredged from the enterprise directory.

23. (New) A communication system according to claim 22 wherein the enterprise directory server is coupled to the IP network, and wherein users of the communication system can make

changes to objects in the enterprise directory representing components of the communication system through a web browser coupled to the IP network.

24. (New) A communication system according to claim 22 configured to automatically update the gateway databases to reflect changes in the enterprise directory.

25. (New) A communication system according to claim 22 configured to update the gateway databases when a new gateway network is added to the communication system and information for the new gateway network entered in the enterprise directory server.

26. (New) A communication system according to claim 25 configured to update a gateway database associated with one of the plurality of gateway networks when the gateway network is placed in operation.

27. (New) A communication system according to claim 21 wherein the enterprise directory comprises in its extensible schema at least one object selected from a group consisting of: an object configured to represent a GateKeeper; an object configured to represent a Gateway; an object configured to represent a Multipoint Control Unit; an object configured to represent a GateKeeper Exchange; and an object configured to represent communication system user with associated telephony services attributes.

28. (New) A communication system according to claim 21 wherein the enterprise directory includes at least one directory selected from the group consisting of: a Novell Directory Services (NDS) compatible directory; a Microsoft Active Directory Services.RTM. (ADS) compatible directory; a Microsoft NT.RTM. domain compatible directory; an X.500 compatible directory; a Netscape.RTM. Directory Server; and a lightweight directory access protocol (LDAP) server.

29. (New) A communication system according to claim 21 wherein the telephones comprise IP telephones.

30. (New) A communication system according to claim 29 wherein the IP telephones include H.323 compliant telephones.

31. (New) A communication system according to claim 21 wherein the telephones comprise non-IP telephones including at least one telephone selected from the group consisting of: private branch exchange telephones; and plain old telephones (POTS).

32. (New) A method of operating a communication system having a plurality of gateway networks coupled to an internet protocol (IP) network and to a public switched telephone (PST) network to route a telephone call over the IP network, the method comprising steps of:

providing a directory server comprising an enterprise directory that is a directory of named objects, including users, network devices and network services and having an extensible schema configured to provide data to support routing of telephone calls;

accessing the directory server, including accessing the extensible schema of the enterprise directory, to create a plurality of gateway databases, each gateway database associated with one of the plurality of gateway networks and each gateway database comprising a list of telephone numbers that each of the plurality of gateway networks will accept;

connecting a user to one of the plurality of gateway networks via a calling telephone;

accepting a telephone number entered by the user; accessing the gateway database associated with the gateway network to determine which of the plurality of gateway networks will accept the telephone number entered by the user; and

routing the telephone call from the calling telephone over the IP network.

33. (New) A method according to claim 32 wherein the step of providing a directory server comprises the steps of:

coupling the enterprise directory having the extensible schema to the IP network, wherein the schema of the enterprise directory is extended with objects representing components of the communication system to create the directory server.

34. (New) A method according to claim 32 wherein the step of providing a directory server comprises the steps of: designating one of the plurality of gateway databases as a master database; designating the remaining gateway databases as slave databases; and creating within a schema of the master database objects representing components of the communication system to create the directory server.

35. (New) A method according to claim 32 wherein the step of providing a directory server further comprises the steps of: accessing a company database coupled to the IP network; and copying the company database to a master database.

36. (New) A method according to claim 32 comprising the further step of accessing the enterprise directory server to provide a company white pages comprising lists of users and telephone numbers.

37. (New) A method according to claim 36, wherein the step of providing a company white pages comprises the step of providing company white pages in which the telephone numbers depend on a location from which the company white pages is accessed.

38. (New) A communication system comprising:

- a public switched telephone (PST) network;

- an internet protocol (IP) network;

- a plurality of voice gateways coupled to the PST network and the IP network, each of the plurality of voice gateways configured to route a telephone call over the PST network or the IP network; and

- general purpose enterprise directory services comprising a distributed network of directory servers coupled to the plurality of voice gateways, the directory services comprising an enterprise directory that is a directory of named objects, including users, network devices and network services and having an extensible schema configured to provide data to support routing of telephone calls and configured to provide data to support routing of telephone calls over the IP network including having an extensible schema including at least one IP telephony object selected from a group consisting of:

  - an object configured to represent a GateKeeper; an object configured to represent a Gateway;

  - an object configured to represent a Multipoint Control Unit; an object configured to represent a GateKeeper Exchange; and

  - an object configured to represent communication system user with associated IP telephony services attributes,

- wherein the enterprise directory services comprise at least one directory service selected from the group consisting of:

  - a Novell Directory Services® (NDS);

a Microsoft Active Directory Services<sup>®</sup> (ADS);  
an X.500 based directory-services;  
a Netscape<sup>®</sup> Directory Server; and  
a lightweight directory access protocol (LDAP) compatible directory-services,  
whereby a single point of entry is provided for making additions, changes and deletions  
of the IP telephony objects by making additions, changes and deletions in the schema of the  
enterprise directory services.